

Aerobic Reactor at a rate of from 0.5 to 2 times said input rate, thereby supplying nitrate ions to said reactors whereby said nitrate ions are substantially reduced to form nitrogen gas, causing a stream of clarified liquor discharged by said clarifier 5 to contain substantially smaller quantities of nitrogen as compared to said stream of throughput wastewater.

22. The process of claim 21, wherein a nitrate recycle rate equalling 400 percent to 800 percent of said input rate is utilized in combination with a return rate of activated sludge 10 from said clarifier to said Anoxic Reactor equalling 0.5 to 2 times said input rate, to produce a nitrate removal efficiency of 82 to 91 percent.

23. The process of claim 20, wherein said Aerobic Reactor is maintained under aerobic conditions in order to:

15 A) enable polyP bacteria in its mixed liquor to:

- 1) multiply by utilizing a polymerized substrate of organic compounds stored intracellularly while releasing energy, and
- 2) ingest phosphate ions on a "luxury" uptake basis;

20 and

B) oxidize ammonia, which is created by deamination of proteins contained in said inflowing wastewater stream to said Anaerobic Reactor, to form nitrate ions.

R E M A R K S

25 Applicant believes that the claims are now in condition for allowance. Applicant respectfully requests that the Examiner

again consider the application, allow the twenty remaining claims, and pass the application to issue.

Respectfully submitted,


Marion P. Lelong
Registration No. 20,077